

Rancho del Valle 005

UNIVERSITY OF CALIFORNIA  
SCRIPPS INSTITUTION OF OCEANOGRAPHY

LUSIAD EXPEDITION

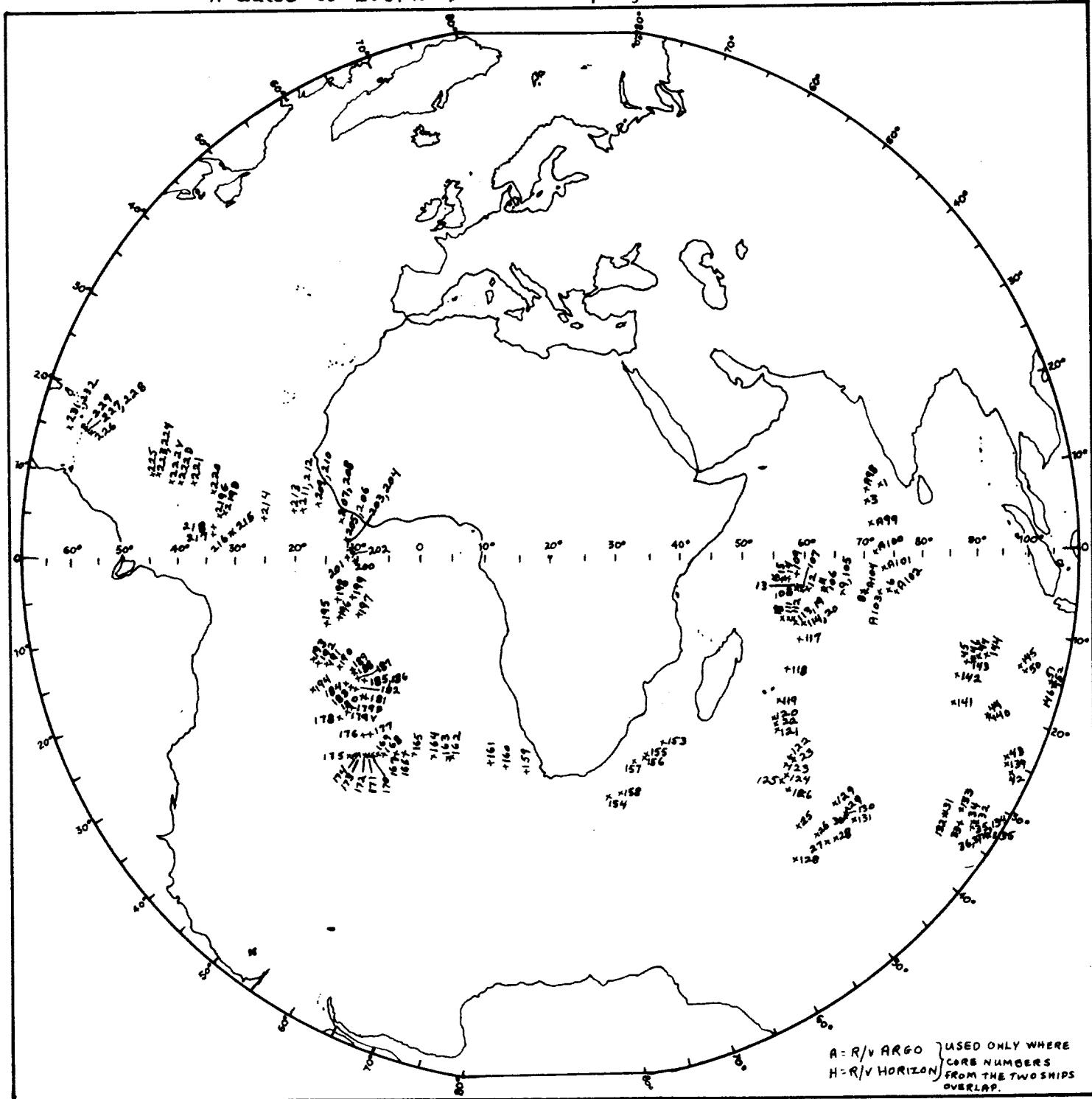
May 1962 - August 1963

LIST OF SEDIMENT CORES AND DREDGE HAULS

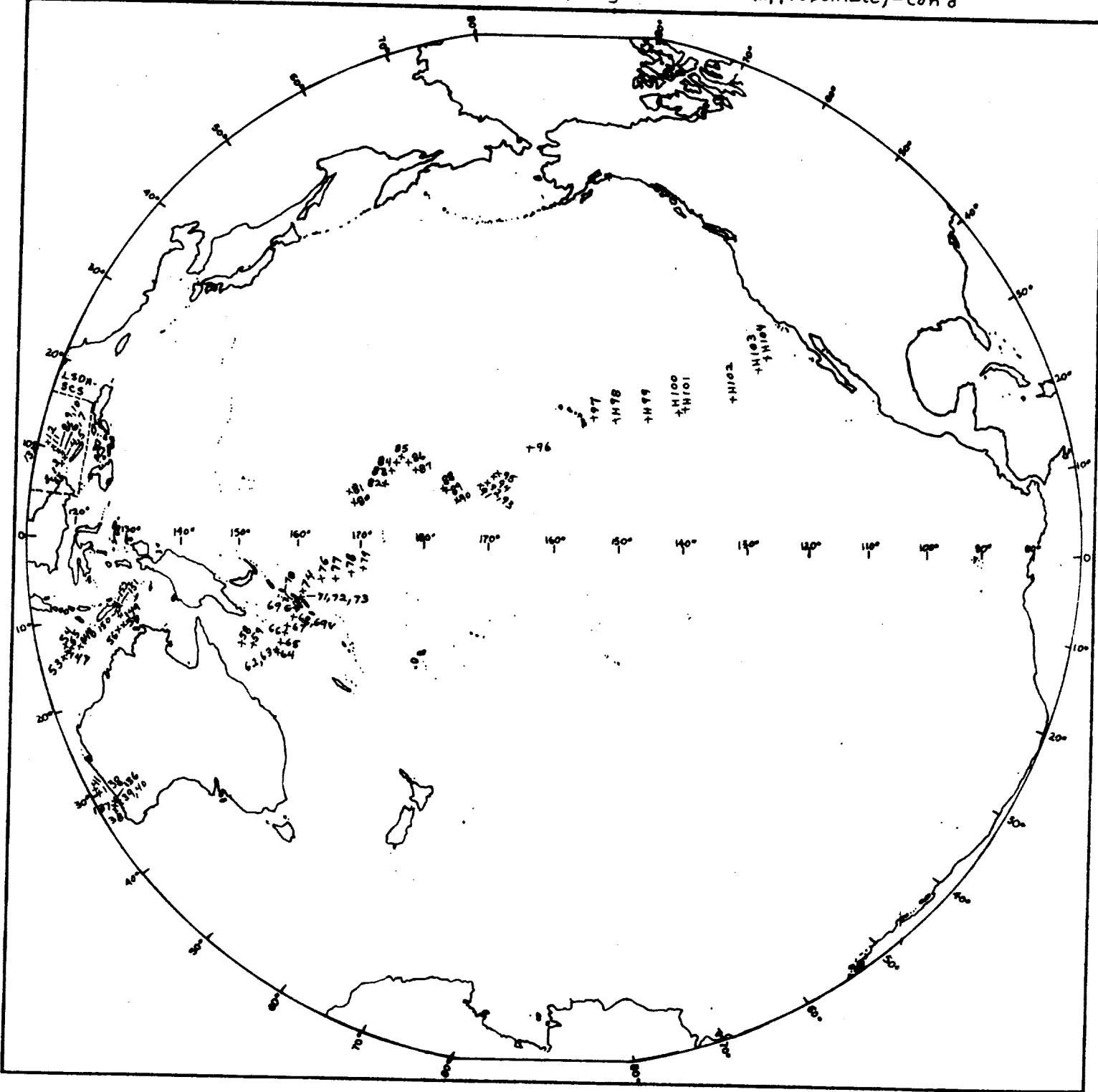
Copied from Shipboard Logs

Depths Corrected by Matthews' Tables

## A Guide to LUSIAD Bottom Sampling Locations (approximate)



#### A Guide to LUSIAD Bottom Sampling Locations (approximate)-con'd



005

-2-

LSDA - SCS

## LUSIAD - ARGO

- LSDA - SCS 1G 16 June 1962, 2157-2350 hrs.; 7°20'N, 115°14'E; depth 2890 m.; core length 184 cm. Uniform light gray-green mud with small dark red-brown mottles, mostly near top. Flat bottom.
- LSDA - SCS 2G 18 June 1962, 1918-2002 hrs.; 6°48'N, 114°44'E; depth 2886 m.; core length 174 cm. Upper 5 cm. red-brown foraminiferal mud; upper two-thirds of rest of core light gray-green getting darker downward; bottom one-third medium gray-green. Trough bottom; flat.
- LSDA - SCS 3G 19 June 1962, 0448-0535 hrs.; 8°14'N, 115°37'E; depth 2818 m.; core length 151 cm. Upper 5 cm. brown mud, remainder light green-gray ooze; foraminiferal throughout. Bottom sloping very gently N.E.
- LSDA - SCS 4G & 4Ga 19 June 1962, 1055-1210 hrs.(2 attempts); 8°37'N, 116°03'E; depth 2280 m.; core length (4Ga) 172 cm. 0-7 cm. red-brown foraminiferal mud; 7-127 cm., green foraminiferal mud; 127-172 cm., gray-green foraminiferal mud. Small trough on a slope.
- LSDA - SCS 5G 19 June 1962, 1733 hrs.; 8°36'N, 115°29'E; depth 2200 m., core length 170 cm. 0-10 cm., green-brown foraminiferal mud; 10-127 cm., light gray-green foraminiferal mud; 127-170 cm., foraminiferal ooze. Slight southern slope on flat bottom.
- LSDA - SCS 6G 20 June 1962, 0010-0045 hrs.; 9°11'N, 115°08'E; depth 2360 m.; core length 141 cm. 0-10 cm., brown-green oxidized layer; 10-41 cm., light gray-green mud; 41-141 cm., bluish gray-green mud. Flat bottom.
- LSDA - SCS 7G 20 June 1962, 0810-0850 hrs.; 9°26'N, 114°25'E; depth 2625 m.; core length 130 cm. 0-9 cm., brown oxidized layer; 9-35 cm., brown gray-green mud, 35-75 cm., blue gray-green mud with small dark fragments; 75-130 cm., gray-green mud. Small trough, fairly flat.
- LSDA - SCS 8G 20 June 1962, 1100-1139 hrs.; 9°20'N, 114°01'E; depth 2700 m; core length 157 cm. 0-6 cm., brown mud; 6-35 cm., light gray-green mud; 35-157 cm., blue-gray mud. Small-scale irregularities on a generally flat bottom.
- LSDA - SCS 9G 20 June 1962, 1530-1613(?)hrs.; 9°29'N, 113°44'E; depth 2444 m.; core length 119 cm. 0-5 cm., brown oxidized mud with abundant Foraminifera; 5-28 cm., light gray-green foraminiferal mud; 28-119 cm., blue-gray mud with Foraminifera and dark fragments. Rolling bottom.
- LSDA - SCS 10G 20 June 1962, 1845-1927 hrs.; 9°44'N, 113°33'E; depth 2670 m.; core length 93 cm. 0-7 cm., green brown foraminiferal mud; 7-53 cm., gray-green mud. 53-93 cm., blue gray-green mud. Flat bottom.
- LSDA - SCS 11G 21 June 1962, 0116-0148 hrs.; 10°00'N, 113°02'E; depth 2090 m.; core length 125 cm. 0-10 cm., light brown foraminiferal mud; 10-33 cm., gray-green mud, grading 33-125 cm., to bluish-gray; small dark fragments throughout with a few larger dark mottles at top of core. Rolling flat bottom at base of steep slope.

LSDA - SCS 12G 21 June 1962, 0719-0820 hrs.; 10°17'N, 112°12'E; depth 3910 m; core length 98 cm. 0-10 cm., brown mud; 10-34 cm., light green-brown mud mottled with dark material; 34-98 cm., green-gray mud with fine dark fragments. Flat bottom at base of slope.

LSDA - SCS 13D 22 June 1962, 0055-0157 hrs.; 10°01'N, 109°52'E; depth 494-520 m. Rocks: manganese and lava; shells: two brachiopods, one echinoid and echinoid spines, one gastropod, two good pelecypods, a chiton part, one coral on manganese, coral fragments, siliceous spicules, abundant shell fragments, mostly pelecypods and bryozoan-like colony tubes; live forms: star fish, echinoids, shrimp, worms, and a sea-anemone-like form. On a SW-NE ridge.

LSDA - SCS 13G 22 June 1962, 0157-0210 hrs.; 9°56'N, 109°50'E; depth 494 m.; core length 46 cm. Very sandy near top, apparently mostly shell fragments with some foraminiferal tests; less sandy toward bottom; dark, fine fragments throughout. On a SW-NE ridge.

- LSDA - 98G 6 October 1962, 1850-1950 hrs.; 8°14'N, 70°38'E; depth 4060 m.; core length 179 cm. Light brown to medium brown mud, becoming darker downward. Relatively flat bottom.
- LSDA - 99G 7 October 1962, 2014 hrs.; 3°58'N, 70°48'E; depth 4130 m.; core length 59 cm. Light brown mud. Flat bottom.
- LSDA - 100G 8 October 1962, 1945-2100 hrs.; 0°04'S, 71°47'E; depth 4200 m.; core length 84 cm. Buff to light brown homogeneous mud. Flat bottom.
- LSDA - 101G 9 October 1962, 1412-1531 hrs.; 2°41'S, 73°12'E; depth 2960 m.; core length 53 cm. Heavy white clay. Abyssal hills; valley 1-2 miles north.
- LSDA - 102G 10 October 1962, 2001-2210 hrs.; 5°21'S, 75°07'E; depth 5240 m.; core length 171 cm. Medium brown to cream colored, mottled mud. Very flat basin.
- LSDA - 103V 11 October 1962, 1247-1421 hrs.; 5°23'S, 72°47'E; depth 2530 m.; core of only a few cm. Cream colored calcareous ooze. Locally flat bottom.
- LSDA - 104G 12 October 1962, 0925-1113 hrs.; 5°40'S, 70°17'E; depth 3960 m.; core length 62 cm. Generally light tan, darker in mid-section. Flat bottom.
- LSDA - 105G 13 October 1962, 0920-1120 hrs.; 5°40'S, 66°36'E; depth 4365 m.; core length 22 cm. Very watery white clay. Flat bottom.
- LSDA - 106G 14 October 1962, 0410-0515 hrs.; 5°34'S, 63°43'E; depth 4090 m.; core length 61 cm. Light buff calcareous ooze. Abyssal hills.
- LSDA - 107Ga 15 October 1962, 1315-1515 hrs.; 5°26'S, 59°15'E; depth 4010 m. White calcareous clay. Small abyssal hills.
- LSDA - 107Gb 15 October 1962, 2020 hrs., 5°26'S, 59°15'E; depth 3930 m.; core length 155 cm. White calcareous ooze. Small abyssal hills.
- LSDA - 108G 16 October 1962, 0523-0610 hrs.; 5°30'S, 57°56'E; depth 2550 m.; core length 117 cm. White calcareous ooze.
- LSDA - 109G 16-17 October 1962, 1657-0330 hrs.; 3°59'S, 58°00'E; depth 4035 m. No core. Winch broke down, core washed out. Flat bottom.
- LSDA - 111Ga 21 October 1962, 0425-0610 hrs.; 9°53'S, 56°32'E; depth 3760 m. No core; core evidently ran out. Very small amount of gritty material.
- LSDA - 111Gb 21 October 1962, 1012-1118 hrs.; 9°53'S, 56°32'E; Depth 3843 m. (double bottom: upper-3750 m.); core length 29 cm. Watery, buff colored, granular sediment.
- LSDA - 112 G 21 October 1962, 2005-2130 hrs.; 9°58'S, 57°08'E; depth 4040 m.; core length 13 cm. White mud.
- LSDA - 113G 22 October 1962, 0750-0850 hrs.; 10°21'S, 58°31'E; depth 3495 m.; core length 94 cm. White calcareous ooze. Flat bottom.

- LSDA - 114Ga      22 October 1962, 2223 hrs.; 10°36'S, 59°52'E; depth 2350 m. No core; washed out.
- LSDA - 114Gb      23 October 1962, 0030-0110 hrs.; 10°36'S, 59°52'E; depth 2270 m.; core length 155 cm. White calcareous ooze.
- LSDA - 117G      24 October 1962, 1715-1820 hrs.; 13°41'S, 59°41'E; depth 3900 m.; core length 146 cm. White and buff calcareous ooze.
- LSDA - 118G      28 October 1962, 1700 hrs.; 17°20'S, 57°42'E; depth 4150 m. No core in two attempts; washed out.
- LSDA - 118V      25 October 1962; 17°21'S, 57°42'E; depth 4150 m.; core length 12 cm. Flat bottom.
- LSDA - 119G      31 October 1962, 1036-1200 hrs.; 22°02'S, 57°33'E; depth 4770 m.; core length 172 cm. Light to medium brown mud.
- LSDA - 120Ga      1 November 1962, 0650 hrs.; 24°30'S, 57°29'E; depth 4958 m. No core.
- LSDA - 120Gb      1 November 1962, 0851-1113 hrs.; 24°30'S, 57°29'E; depth 4990 m.; Core length 148 cm. Brown mud. Flat bottom surrounding abyssal hills.
- LSDA - 121G      2 November 1962, 0524 hrs.; 26°51'S, 58°14'E; depth 5335 m.; core length 63 cm. Medium brown mud.
- LSDA - 122G      3 November 1962, 1738 hrs.; 29°54'S, 61°53'E; depth 4400 m.; core length 124 cm. Medium brown mud; Mn nodule at top.
- LSDA - 123G      4 November 1962, 1008-1123 hrs.; 31°27'S, 61°49'E; depth 4200 m.; core length 167 cm. Brown mud, darker on top, buff below, with 2 Mn nodules. Flat bottom.
- LSDA - 124G      5 November 1962, 0515-0700 hrs.; 32°44'S, 62°24'E; depth 4780 m.; core length 170 cm. Brown to light brown clay. Flat to moderately hilly bottom.
- LSDA - 125G      5 November 1962, 1815-1950 hrs.; 33°14'S, 61°43'E; depth 4800 m.; core length 172 cm. Brown mud.
- LSDA - 126G      7 November 1962, 0807 hrs.; 39°46'S, 64°00'E; depth 4980 m.; core length 10 cm. Buff to light brown mud with Mn nodule.
- LSDA - 128G      13 November 1962, 0610-0800 hrs.; 44°38'S, 70°58'E; depth 3616 m.; core length 78 cm. Calcareous ooze.
- LSDA - 129G      15 November 1962, 0525-0700 hrs.; 35°47'S, 73°36'E; depth 4240 m.; core length 85 cm. Buff and light brown calcareous (?) ooze.

LSDA

- LSDA - 129 PG&P 15 November 1962, 1507-1745 hrs.;  $35^{\circ}47'S$ ,  $73^{\circ}36'E$ ; depth 4230 m.; core length 2-3 cc. in gravity catcher, 1 cc. in piston corer. Piston barrel bent.
- LSDA - 130G 16 November 1962, 0540-0714 hrs.;  $36^{\circ}52'S$ ,  $76^{\circ}22'E$ ; depth 3550 m.; core length 27 cm. Homogenous buff mud.
- LSDA - 130V 16 November 1962, 0719 hrs.;  $36^{\circ}52'S$ ,  $76^{\circ}22'E$ ; depth 3940 m.; core length 13 cm. Light tan mud, pushed by hand back into corer when it came out.
- LSDA - 131G 17 November 1962, 0406-0500 hrs.;  $37^{\circ}19'S$ ,  $78^{\circ}26'E$ ; depth 1920 m.; core length 39 cm. Buff calcareous ooze. Abyssal hills.
- LSDA - 132PG 22 November 1962, 1115 hrs.;  $33^{\circ}47'S$ ,  $96^{\circ}00'E$ ; depth 4328 m.; core length 86 cm. Buff at top to chocolate brown at bottom. Abyssal hills.
- LSDA - 132P Simultaneously with LSDA 132 PG. Core length: Section 1, 152 cm.; Section 2, 71 cm.; Section 3, 45 cm.; Section 4, 25 cm.; Section 5, 23 cm.; Section 6, 109 cm. Cocoa-colored granular sediment. 0-109 cm. chocolate mud; 109-132 cm., buff mud; 132-157 cm., light brown with fine particles; 157-425 cm., light brown granular sediment. NOTE: Numerical sequence of sections of core as to top and bottom of core is unknown.
- LSDA - 133Ga 23 November 1962, 0650-0740 hrs.;  $32^{\circ}00'S$ ,  $98^{\circ}52'E$ ; depth 2180 m. Catcher only. White calcareous sediment. Flat bottom.
- LSDA - 133Gb 23 November 1962, 1235-1315 hrs.;  $32^{\circ}00'S$ ,  $98^{\circ}52'E$ ; depth 1925 m. Catcher only; small amount of white sand. Flat bottom.
- LSDA - 134PG 24 November 1962, 1535 hrs.;  $33^{\circ}02'S$ ,  $103^{\circ}29'E$ ; depth 5165 m.; core length 131 cm. Chocolate mud. Abyssal hills.
- LSDA - 134P Simultaneously with LSDA 134 PG. Core length: Section 1 (bottom of core), 152 cm.; Section 2, 133 cm. Chocolate mud.
- LSDA - 135G 26 November 1962, 0425 hrs.;  $32^{\circ}51'S$ ,  $108^{\circ}44'E$ ; depth 5330 m. No core; did not hit bottom. Flat bottom.
- LSDA - 136G 2 December 1962, 2020-2140 hrs.;  $31^{\circ}30'S$ ,  $114^{\circ}23'E$ ; depth 3860 m.; core length 21 cm. Cream to white calcareous ooze. Bottom of continental slope, abyssal hills.
- LSDA - 136V 3 December 1962,  $31^{\circ}30'S$ ,  $114^{\circ}23'E$ ; depth 3741 m. Very light tan mud.
- LSDA - 137G 3 December 1962, 1218-1354 hrs.;  $31^{\circ}45'S$ ,  $113^{\circ}56'E$ ; depth 4545 m.; core length 26 cm. Calcareous ooze. Bottom of continental slope.
- LSDA - 138G 4 December 1962, 0628-0833 hrs.;  $29^{\circ}42'S$ ,  $111^{\circ}28'E$ ; depth 5355 m. Catcher only. Orange-yellow clay with black particles. Flat bottom.

- LSDA - 138V 4 December 1962; 29°42'S, 111°28'E; depth 5355 m.; core length 8 cm. Orange yellow clay. Flat bottom.
- LSDA - 139Ga 6 December 1962, 0627 hrs.; 25°05'S, 104°14'E; Depth 5240 m. No core. No bottom echo observable. Flat bottom.
- LSDA - 139Gb 6 December 1962, 0855-1100 hrs.; 25°05'S, 104°14'E; depth 5215 m.; core length 148 cm. Chocolate brown clay. Catcher contaminated with red pencil markings used in extrusion. Flat bottom.
- LSDA - 140G 8 December 1962, 0718-1105 hrs.; 20°43'S, 97°12'E; depth 5690 m.; core length 142 cm. Chocolate brown clay. Three breaks in core at 8-1/2, 12-1/2 and 17 cm. from the top. Flat bottom.
- LSDA - 141G 10 December 1962, 1000-1200 hrs.; 19°27'S, 89°19'E; depth 5620 m.; core length 78 cm. Chocolate brown clay. Flat bottom.
- LSDA - 142Ga 11 December 1962, 0810 hrs.; 14°35'S, 88°02'E; depth 2320 m. No core; few grains of sand. Flat, plateau.
- LSDA - 142Gb 11 December 1962, 0927-1010 hrs.; 14°35'S, 88°02'E; depth 2422 m. Catcher only, 1 cc. white granules. Plateau.
- LSDA - 142D 11 December 1962, 1600-1800 hrs.; 14°35'S, 88°02'E; depth 2630 m. 4 plastic boxes from 2 pipes. Calcareous ooze.
- LSDA - 143PG 12 December 1962, 1020-1220 hrs.; 13°53'S, 90°48'E; depth 5320 m.; core length 145 cm. Chocolate brown at top, grading to cream color at bottom, with abrupt change of color and texture at approx. 115 cm. Flat, valley.
- LSDA - 143P Simultaneously with LSDA 142PG. No core.
- LSDA - 144G 13 December 1962, 1205-1335 hrs.; 13°09'S, 93°13'E; depth 5226 m.; core length 51 cm. Chocolate brown clay with small white particles.
- LSDA - 145PGa 15 December 1962, 0755-1115 hrs.; 13°40'S, 100°20'E; depth 5984 m.; core length 145 cm. Partially calcareous (?) chocolate mud.
- LSDA - 145Pa Simultaneously with LSDA 145 PGa. No core.
- LSDA - 145PGb 15 December 1962, 1315-1618 hrs.; 13°40'S, 100°20'E; depth 5987 m.; core length 107 cm. Chocolate layer at top to white below.
- LSDA - 145Pb Simultaneously with LSDA 145 PGb. Core length: Section 1 (bottom of core), 152 cm.; Section 2, 152 cm.; Section 3, 91 cm.; Section 4, 158 cm. 0-158 cm., brown with black bands; 158-249 cm., brown with some white; 249-401 cm., homogeneous, light brown mud; 401-553 cm., light brown mud. Top 5-8 cm. washed out of liner or removal of piston and placed in box, allowed to settle and water was drained off. Top looks good, but bottom 60 cm. may be disturbed. Flat bottom.

LSDA

-8-

- LSDA - 146G      17 December 1962, 0705-0910 hrs.;  $14^{\circ}59'S$ ,  $108^{\circ}08'E$ ; depth 5564 m.; core length 39 cm. Tan with yellow parts and dark specks. Sample very broken up. Flat bottom.
- LSDA - 147PG      19 December 1962, 0700-1000 hrs.;  $13^{\circ}48'S$ ,  $115^{\circ}37'E$ ; depth 5679 m.; core length 117 cm. Catcher sample.
- LSDA - 147P      Simultaneously with LSDA 147 PG. Core length: Section 1 (bottom of core), 153 cm.; Section 2, 153 cm.; Section 3, 153 cm.; Section 4, 113 cm. 0-113 cm., striated and variegated mud; 113-572 cm., buff and gray-brown mud. Also top and bottom piston catcher samples, therefore, part of top of core in plastic box.
- LSDA - 148G      20 December 1962, 1023-1205 hrs.;  $13^{\circ}30'S$ ,  $118^{\circ}22'E$ ; depth 5679 m.; core length 115 cm. Chocolate brown top merging to gray at bottom.
- LSDA - 149PG      2 January 1963, 0320-0350 hrs.;  $9^{\circ}54'S$ ,  $127^{\circ}39'E$ ; depth 432 m.; core length 76 cm. Gray-green clay mixed with sand and small shell fragments.
- LSDA - 149P      Simultaneously with LSDA 149PG. Core length 138 cm. Gray-green clay with sand and small shell fragments mixed. Partial penetration in sandy-shell bottom.
- LSDA - 150PG      2 January 1963, 0620-0721 hrs.;  $9^{\circ}29'S$ ,  $127^{\circ}22'E$ ; depth 1570 m.; core length approx. 15 cm. in catcher box. Partial penetration, hard bottom. Gray-green clay, quite sandy.
- LSDA - 150P      Simultaneously with LSDA 150PG. Core length 48 cm., plus approx. 20 cm., in two catcher boxes. Gray-green clay, quite sandy.
- LSDA - 151PGa      2 January 1963, 0917-1108 hrs.;  $9^{\circ}13'S$ ,  $127^{\circ}27'E$ ; depth 3305 m.; core length 128 cm. Gray-green clay.
- LSDA - 151Pa      Simultaneously with LSDA 151 PG. No core, core barrel lost on pull-out.
- LSDA - 151PGb      2 January 1963, 1245-1445 hrs.;  $9^{\circ}13'S$ ,  $127^{\circ}27'E$ ; depth 3305 m.; core length 128 cm. Gray-green clay; top 15 cm. brown with sand shell fragments.
- LSDA 151Pb      Simultaneously with LSDA 151PGb. Core length: Section 1 (top of core), 141 cm.; Section 2, 152 cm.; Section 3, 41 cm. Gray-green clay.  
NOTE: Sequence may actually be reversed.
- LSDA 152PG      2 January 1963, 1733-1834 hrs.;  $8^{\circ}44'S$ ,  $127^{\circ}29'E$ ; depth 1312 m.; core length 119 cm. Gray-green clay with some brown mud near top.

- LSDA - 152P Simultaneously with LSDA 152PG. Core length: Section 1 (top of core), 152 cm.; Section 2, 88 cm. Gray-green, slightly sandy clay. NOTE: Sequence may actually be reversed.
- LSDA - 153G 24 May 1963, 1639-1840 hrs.;  $28^{\circ}58'S$ ,  $39^{\circ}01'E$ ; depth 4895 m. Very small amount of sand and gravel.
- LSDA - 154G 25 May 1963, 0257-0428 hrs.;  $30^{\circ}06'S$ ,  $37^{\circ}47'E$ ; depth 5000 m.; core length 103 cm. Light brown mud.
- LSDA - 154V 25 May 1963, 0436-0643 hrs.;  $30^{\circ}06'S$ ,  $37^{\circ}47'E$ ; depth 4990 m.; core length 10 cm. Medium to light brown, slightly mottled mud.
- LSDA - 155V 25 May 1963, 1407-1601 hrs.;  $31^{\circ}04'S$ ,  $36^{\circ}43'E$ ; depth 4535 m.; core length approx. 4 cm. Light buff to buff calcareous ooze with small Mn nodule.
- LSDA - 156G 25 May 1963, 2038-2126 hrs.;  $31^{\circ}39'S$ ,  $35^{\circ}57'E$ ; depth 2560 m.; core length 41 cm.
- LSDA - 156V 25 May 1963, 2136-2250 hrs.;  $31^{\circ}39'S$ ,  $35^{\circ}57'E$ ; depth 2545 m. Light buff calcareous ooze.
- LSDA - 157V 26 May 1963, 0933-1055 hrs.;  $32^{\circ}16'S$ ,  $34^{\circ}18'E$ ; depth 2660 m.; core length 10 cm. Light buff calcareous ooze, many small black particles.
- LSDA - 158G 26 May 1963, 1830-1930 hrs.;  $32^{\circ}23'S$ ,  $32^{\circ}33'E$ ; depth 3560 m.; core length 112 cm. Light brown mud at top, green-gray clay at bottom.
- LSDA - 158V 26 May 1963, 1951-2137 hrs.;  $32^{\circ}23'S$ ,  $32^{\circ}33'E$ ; depth 3560 m.; core length 10 cm. Gray fossiliferous mud.
- LSDA - 159G 5 June 1963, 0333-0440 hrs.;  $33^{\circ}51'S$ ,  $15^{\circ}07'E$ ; depth 4150 m.; core length 146 cm. Light buff calcareous ooze in top two-thirds, grading down into light gray mud. Base of continental slope west of Cape Town.
- LSDA - 159V 5 June 1963, 0455-0641 hrs.;  $33^{\circ}51'S$ ,  $15^{\circ}07'E$ ; depth 4170 m.; core length 10 cm. Buff calcareous ooze.
- LSDA - 160V 5 June 1963, 2104-2250 hrs.;  $33^{\circ}14'S$ ,  $11^{\circ}53'E$ ; depth 4630 m.; core length approx. 15 cm. in catcher box. Medium buff mud. Base of continental slope approx. 300 miles west of Cape Town.
- LSDA - 161G 6 June 1963, 1327-1520 hrs.;  $32^{\circ}27'S$ ,  $9^{\circ}05'E$ ; depth 5036 m.; core length 39 cm. Dark brown, silty fossiliferous clay with small dark particles, and salmon-colored lumps of relatively more indurated clay. Nearly flat, slightly rolling bottom.
- LSDA - 162G 8 June 1963, 0813-0926 hrs.;  $31^{\circ}38'S$ ,  $2^{\circ}44'E$ ; depth 3820 m. Small piece of nodule crust(?) in probe core placed in catcher box. No gravity core. East slope of Walvis Ridge.

-10-

- LSDA - 162D      8 June 1963, 1512-1820 hrs.;  $31^{\circ}32'S$ ,  $2^{\circ}28'E$ ; depth 1528 m., up slope to 640 fm. peak on Walvis Ridge. Two burlap bags of calcareous or coral sandstone; quite a few biological samples.
- LSDA - 163G      8-9 June 1963, 2313-0040 hrs.;  $31^{\circ}20'S$ ,  $1^{\circ}55'E$ ; depth 4190 m.; core length 149 cm. Cream to light tan mud in upper 25-50 cm. becoming darker tan below. Moderately smooth ( $\pm$  10 fm.) bottom; deep valley between (?) peaks of Walvis Ridge.
- LSDA - 163V      Probably on same station as LSDA 163G. Core length 10 cm.
- LSDA - 164V      9 June 1963, 1524-1710 hrs.;  $30^{\circ}54'S$ ,  $0^{\circ}57'W$ ; depth 3810 m.; core length 8 cm. Light buff calcareous ooze. West of Walvis Ridge.
- LSDA - 165G      10 June 1963, 1500-1705 hrs.;  $30^{\circ}10'S$ ,  $4^{\circ}21'W$ ; depth 4850 m.; core length 139 cm. Light buff calcareous mud becoming darker with depth to light brown. Between Walvis Ridge and Mid-Atlantic Ridge.
- LSDA - 165V      Probably on same station as LSDA 165G. Light buff calcareous mud.
- LSDA - 166V      11 June 1963, 0606-0750 hrs.;  $30^{\circ}06'S$ ,  $5^{\circ}49'W$ ; depth 4340 m.; core length 10 cm. Light buff calcareous (?) ooze. Abyssal hills.
- LSDA - 167G      11 June 1963, 1820-1952 hrs.;  $29^{\circ}42'S$ ,  $7^{\circ}20'W$ ; depth 4152 m.; core length 65 cm. Light buff calcareous ooze. Between Walvis Ridge and Mid-Atlantic Ridge.
- LSDA - 168G      12 June 1963, 1030-1130 hrs.;  $29^{\circ}52'S$ ,  $9^{\circ}24'W$ ; depth 3930 m.; core length 130 cm. Light buff calcareous ooze. On lower eastern flank of Mid-Atlantic Ridge.
- LSDA - 169V      12 June 1963, 1539-1715 hrs.;  $29^{\circ}49'S$ ,  $10^{\circ}17'W$ ; depth 3735 m.; core length approx. 10 cm. Buff to light tan calcareous (?) ooze. East slope of Mid-Atlantic Ridge.
- LSDA - 170V      12 June 1963, 2141-2320 hrs.;  $29^{\circ}48'S$ ,  $11^{\circ}10'W$ ; depth 3690 m.; core length 8 cm. Light buff calcareous ooze.
- LSDA - 171V      <sup>1963</sup> 13 June /0203-0332 hrs.;  $29^{\circ}52'S$ ,  $11^{\circ}53'W$ ; depth 3400 m.; core length 8 cm. Light buff calcareous ooze. 50-100 miles east of Mid-Atlantic Ridge crest.
- LSDA - 172G      13 June 1963, 1038-1132 hrs.;  $29^{\circ}50'S$ ,  $12^{\circ}35'W$ ; depth 3213 m.; core length 33 cm. 20-50 miles east of Mid-Atlantic Ridge crest.
- LSDA - 172V      13 June 1963, 0904-1031 hrs.;  $29^{\circ}50'S$ ,  $12^{\circ}35'W$ ; depth 3200 m.; core length 8 cm. Light buff calcareous ooze.
- LSDA - 173V      13 June 1963, 1903-2102 hrs.;  $29^{\circ}44'S$ ,  $14^{\circ}15'W$ ; depth 2935 m.; core length approx. 8 cm. Light buff calcareous ooze.

- LSDA - 174V 14 June 1963, 0715-0845 hrs.;  $29^{\circ}50'S$ ,  $14^{\circ}48'W$ ; depth 3730 m.; core length 10 cm. Light tan to buff calcareous (?) ooze. West of Mid-Atlantic Ridge crest.
- LSDA - 175V 14 June 1963, 1531-1704 hrs.;  $29^{\circ}52'S$ ,  $15^{\circ}30'W$ ; depth 3405 m.; core length 10 cm. Light buff calcareous ooze.
- LSDA - 176G 16 June 1963, 1657-1845 hrs.;  $27^{\circ}21'S$ ,  $12^{\circ}36'W$ ; depth 3580 m.; core length 5 cm. plus catcher. In catcher box. Medium buff ooze. East of Mid-Atlantic Ridge crest.
- LSDA - 177G 17 June 1963, 0419-0550 hrs.;  $27^{\circ}29'S$ ,  $10^{\circ}59'W$ ; depth 3575 m.; core length 90 cm. Light buff calcareous ooze. About 200 miles east of Mid-Atlantic Ridge crest.
- LSDA - 178G 19 June 1963, 2245-2400 hrs.;  $24^{\circ}03'S$ ,  $15^{\circ}33'W$ ; depth 4045 m.; core length 100 cm. Light tan calcareous (?) mud. Lower flank of west side of Mid-Atlantic Ridge.
- LSDA - 179V 20 June 1963, 0716-0905 hrs.;  $23^{\circ}48'S$ ,  $14^{\circ}30'W$ ; depth 3995 m.; core length 3 cm. Light tan and light buff calcareous ooze. West of Mid-Atlantic Ridge; rugged mountains on west flank.
- LSDA - 179D (formerly D2) 21 June 1963, 1622-2018 hrs.;  $22^{\circ}40'S$ ,  $13^{\circ}16'W$ ; depth 2910 m.; Mostly large angular cobbles of fine-grained basalt coated with black Mn oxide; no fresh surfaces; interior of large cobbles apparently unweathered; some cobbles of indurated talus debris containing basalt pebbles and Mn nodules in a light buff clay matrix, small particles collected in sock dredge include Mn nodules and many Foraminifera.
- LSDA - 180G 22-23 June 1963, 2350-0047 hrs.;  $21^{\circ}21'S$ ,  $11^{\circ}39'W$ ; depth 2460 m.; core length 23 cm. Near top of Mid-Atlantic Ridge.
- LSDA - 181V 23 June 1963, 0751-0930 hrs.;  $21^{\circ}17'S$ ,  $10^{\circ}45'W$ ; depth 3535 m.; core length approx. 10 cm. Light tan calcareous (?) ooze. On western edge of Mid-Atlantic Ridge.
- LSDA - 182V 24 June 1963, 0807-0930 hrs.;  $19^{\circ}53'S$ ,  $12^{\circ}26'W$ ; depth 2710 m.; core length approx. 7 cm. Light tan calcareous (?) ooze. West side of Mid-Atlantic Ridge crest.
- LSDA - 183G 24 June 1963, 1406-1503 hrs.;  $19^{\circ}44'S$ ,  $12^{\circ}55'W$ ; depth 3500 m.; core length 50 cm. Light buff calcareous ooze. On lower portion of west flank of Mid-Atlantic Ridge (possibly off the ridge).
- LSDA - 184V 25 June 1963, 0615-0740 hrs.;  $18^{\circ}59'S$ ,  $12^{\circ}48'W$ ; depth 3125 m.; core length 10 cm. Light tan calcareous (?) ooze. Western high flank, Mid-Atlantic Ridge.
- LSDA - 185G 26 June 1963, 0450-0600 hrs.;  $18^{\circ}33'S$ ,  $10^{\circ}17'W$ ; depth 3460 m.; core length 35 cm. Lower east flank of Mid-Atlantic Ridge.
- LSDA - 186V 26 June 1963, 0312-0441 hrs.;  $18^{\circ}33'S$ ,  $10^{\circ}17'W$ ; depth 3495 m. Light buff calcareous (?) ooze.

LSDA

-12-

005

- LSDA - 187V 26 June 1963, 1112-1238 hrs.;  $18^{\circ}08'S$ ,  $11^{\circ}14'W$ ; depth 3305 m.; core length approx. 4 cm. Light buff calcareous ooze. On lower east flank of Mid-Atlantic Ridge.
- LSDA - 188V 26 June 1963, 1851 hrs.;  $17^{\circ}39'S$ ,  $12^{\circ}21'W$ ; depth 3440 m. Light buff calcareous ooze. East of Mid-Atlantic Ridge crest.
- LSDA - 189V 27 June 1963, 0158-0330 hrs.;  $17^{\circ}15'S$ ,  $12^{\circ}18'W$ ; depth 3340m.; core length 8 cm. Light buff calcareous ooze. On or near crest of Mid-Atlantic Ridge.
- LSDA - 190V 27 June 1963, 1003-1138 hrs.;  $16^{\circ}48'S$ ,  $14^{\circ}25'W$ ; depth 3375 m. Light tan calcareous ooze. A few miles west of a deep valley (rift?) on crest of Mid-Atlantic Ridge.
- LSDA - 191V 27 June 1963, 1833-2009 hrs.;  $16^{\circ}16'S$ ,  $15^{\circ}42'W$ ; depth 3430 m.; core length approx. 7 cm. Light buff calcareous ooze.
- LSDA - 192V 28 June 1963, 0208-0348 hrs.;  $15^{\circ}49'S$ ,  $16^{\circ}50'W$ ; depth 3820 m. Light tan calcareous ooze. Lower west flank of Mid-Atlantic Ridge.
- LSDA - 193V 28 June 1963, 0932-1120 hrs.;  $15^{\circ}24'S$ ,  $17^{\circ}55'W$ ; depth 4390 m.; core length 12 cm. Light tan calcareous ooze. Lower west flank of Mid-Atlantic Ridge.
- LSDA - 194G 28 June 1963, 2105-2210 hrs.;  $14^{\circ}54'S$ ,  $19^{\circ}24'W$ ; depth 4130 m.; core length 27 cm. Light tan sandy foraminiferal ooze; many black particles scattered throughout. West of Mid-Atlantic Ridge.
- LSDA - 195V 30 June 1963, 0917-1050 hrs.;  $10^{\circ}00'S$ ,  $15^{\circ}27'W$ ; depth 3595 m; core length approx. 12 cm. Grayish-tan calcarious ooze. West of Mid-Atlantic Ridge.
- LSDA - 196V 1 July 1963, 0136-0257 hrs.;  $9^{\circ}10'S$ ,  $13^{\circ}18'W$ ; depth 2690 m.; core length approx. 12 cm. Light buff calcareous ooze. Center of Mid-Atlantic Ridge.
- LSDA - 197V 1 July 1963, 1708-1845 hrs.;  $9^{\circ}02'S$ ,  $10^{\circ}32'W$ ; depth 3550 m.; Light buff calcareous (?) ooze. East flank of Mid-Atlantic Ridge.
- LSDA - 198V 2 July 1963, 1458-1623 hrs.;  $6^{\circ}44'S$ ,  $13^{\circ}28'W$ ; depth 3245 m.; Light buff calcareous (?) ooze. West of Mid-Atlantic Ridge.
- LSDA - 199D (formerly D3) 3 July 1963, 0410 hrs.;  $5^{\circ}47'S$ ,  $11^{\circ}25'W$ ; depth 2380 m. Angular cobbles and boulders of basalt with some Mn coating.
- LSDA - 199G 3 July 1963, 1002-1054 hrs.;  $5^{\circ}42'S$ ,  $11^{\circ}14'W$ ; depth 2900 m.; core length 64 cm. Near crest of Mid-Atlantic Ridge.
- LSDA - 199V Probably on same station as LSDA 199G.
- LSDA - 200V 4-5 July 1963, 2301-0040 hrs.;  $0^{\circ}58'S$ ,  $10^{\circ}36'W$ ; depth 4030 m.; core length approx. 5 cm. Grayish tan calcareous ooze. East of Mid-Atlantic Ridge.

- LSDA - 201V      5 July 1963, 0402-0553 hrs.;  $0^{\circ}29'N$ ,  $11^{\circ}52'W$ ; depth 4345 m.; core length 10 cm. Light gray calcareous ooze.
- LSDA - 202G      5 July 1963, 1155-1312 hrs.;  $0^{\circ}02'N$ ,  $11^{\circ}03'W$ ; depth 4081 m.; core length 164 cm. Light grayish-tan at top to light gray calcareous ooze. West of Mid-Atlantic Ridge.
- LSDA - 203V      5 July 1963, 1733-1922 hrs.;  $0^{\circ}32'N$ ,  $11^{\circ}17'W$ ; depth 4212 m.; core length 10 cm. Buff to dark gray calcareous ooze. 500 miles south-southeast of Freetown.
- LSDA - 204V      5-6 July 1963, 2322-0120 hrs.;  $1^{\circ}00'N$ ,  $11^{\circ}31'W$ ; depth 4950 m. Medium gray calcareous ooze.
- LSDA - 205G      6 July 1963, 1625-1750 hrs.;  $2^{\circ}39'N$ ,  $12^{\circ}14'W$ ; depth 4735 m.; core length 156 cm.
- LSDA - 206V      6 July 1963, 1422-1620 hrs.;  $2^{\circ}38'N$ ,  $12^{\circ}11'W$ ; depth 4735 m.; core length 12 cm. Medium brown mud with some dark gray streaks.
- LSDA - 207G      7 July 1963, 1016-1130 hrs.;  $5^{\circ}01'N$ ,  $12^{\circ}45'W$ ; depth 4390 m.; core length 157 cm. Dark tan ooze at top to dark blue or gray at bottom.
- LSDA - 208V      7 July 1963, 0820-1003 hrs.;  $5^{\circ}01'N$ ,  $12^{\circ}45'W$ ; depth 4390 m. Medium gray calcareous (?) ooze.
- LSDA - 209G      12 July 1963, 1034-1204 hrs.;  $7^{\circ}24'N$ ,  $17^{\circ}08'W$ ; depth 4798 m.; core length 100 cm. Dark tan calcareous (?) ooze to medium gray mud.
- LSDA - 210V      12 July 1963, 0821-1030 hrs.;  $7^{\circ}24'N$ ,  $17^{\circ}08'W$ ; depth 4800 m.; core length 10 cm. Dark chocolate brown mud.
- LSDA - 211V      13 July 1963, 0015-0209 hrs.;  $6^{\circ}48'N$ ,  $19^{\circ}18'W$ ; depth 4360 m.; core length 10 cm. Medium brown mud; thin layer of dark gray mud at top of core smeared down sides by catcher.
- LSDA - 212G      13 July 1963, 0218-0330 hrs.;  $6^{\circ}48'N$ ,  $19^{\circ}18'W$ ; depth 4360 m.; core length 81 cm. Brown mud, darker at top.
- LSDA - 213V      13 July 1963, 1206-1334 hrs.;  $6^{\circ}22'N$ ,  $20^{\circ}49'W$ ; depth 3590 m.; core length 10 cm. Dark tan calcareous (?) ooze, with patches and streaks of dark gray mud.
- LSDA - 214V      14 July 1963, 1346-1534 hrs.;  $5^{\circ}08'N$ ,  $25^{\circ}18'W$ ; depth 4360 m.; core length 10 cm. Medium brown foraminiferal mud.
- LSDA - 215G      15-16 July 1963, 2314-0035 hrs.;  $3^{\circ}22'N$ ,  $30^{\circ}56'W$ ; depth 2575 m.; core length 67 cm. Light tan calcareous (?) ooze, trace of grayish mud at top. Flatish bottom approx. 1 mile and sloping west by west-southwest (20 fm/mile) between two peaks. Topography has high relief (up to 800 fm.) with steep slopes.

105

LSDA

-14-

- LSDA - 216V 16 July 1963, 0202-0323 hrs.;  $3^{\circ}18'N$ ,  $31^{\circ}03'W$ ; depth 2820 m.; core length 10 cm. Grayish tan calcareous ooze. On crest of Mid-Atlantic Ridge.
- LSDA - 217G 16 July 1963, 2300-2359 hrs.;  $3^{\circ}18'N$ ,  $34^{\circ}05'W$ ; depth 3340 m.; core length 155 cm. Light buff to salmon-colored calcareous ooze. West of Mid-Atlantic Ridge and well down on Ridge flank. Possibly in or near cross-fracture zone (Heezen's map).
- LSDA - 218V 16 July 1963, 2128-2252 hrs.;  $3^{\circ}57'N$ ,  $34^{\circ}05'W$ ; depth 3340 m.; core length 8 cm. Salmon-colored calcareous ooze with some dark grayish-brown lumps or streaks.
- LSDA - 219V 17 July 1963, 1307-1432 hrs.;  $5^{\circ}46'N$ ,  $32^{\circ}50'W$ ; depth 2954 m.; core length 10 cm. Grayish brown calcareous ooze. On or near crest of Mid-Atlantic Ridge.
- LSDA - 219D (formerly D4) 17-18 July 1963, 2120-0125 hrs.;  $6^{\circ}03'N$ ,  $32^{\circ}22'W$ ; depth 3280-2761 m. Angular cobbles and boulders of Mn coated basalt.
- LSDA - 220G 19 July 1963, 0723-0858 hrs.;  $8^{\circ}26'N$ ,  $34^{\circ}26'W$ ; depth 4794 m.; core length 181 cm. On southern edge of Cape Verde Basin and about 120-140 miles northeast of Mid-Atlantic Ridge crest.
- LSDA - 221V 20 July 1963, 0258-0438 hrs.;  $9^{\circ}32'N$ ,  $37^{\circ}45'W$ ; depth 4050 m.; core length 10 cm. Light buff calcareous ooze.
- LSDA - 222D (formerly D5) 20 July 1963, 1955-2205 hrs.;  $9^{\circ}39'N$ ,  $40^{\circ}27'W$ ; depth 2388 m.; Mn coated pebbles and cobbles of basalt. 400 fm peak.
- LSDA - 222V 21 July 1963, 0457-0618 hrs.;  $9^{\circ}45'N$ ,  $41^{\circ}20'W$ ; depth 3295 m.; core length 10 cm. Light buff calcareous ooze. On west flank of Mid-Atlantic Ridge about 40 miles west of central valley rift.
- LSDA - 223G 22 July 1963, 1200-1304 hrs.;  $11^{\circ}33'N$ ,  $44^{\circ}48'W$ ; depth 4019 m.; core length 122 cm. Light buff calcareous ooze. On lower west flank of Mid-Atlantic Ridge.
- LSDA - 224V 22 July 1963, 1000-1135 hrs.;  $11^{\circ}33'N$ ,  $44^{\circ}48'W$ ; depth 3855 m.; core length 10 cm. Light buff calcareous ooze.
- LSDA - 225V 22 July 1963, 1645-1824 hrs.;  $11^{\circ}33'N$ ,  $45^{\circ}33'W$ ; depth 4100 m.; core length 10 cm. Light buff calcareous ooze. West of Mid-Atlantic Ridge crest.
- LSDA - 226V 25 July 1963, 1004-1134 hrs.;  $14^{\circ}58'N$ ,  $58^{\circ}17'W$ ; depth 3535 m.; core length 10 cm. Light brown calcareous ooze. 150-180 miles east of Martinique.
- LSDA - 227G 25 July 1963, 2146-2300 hrs.;  $15^{\circ}04'N$ ,  $60^{\circ}03'W$ ; depth 4450 m.; core length 97 cm. Tan-buff calcareous ooze. About 60-70 miles east of north end of Martinique.

605

LSDA

-15-

- LSDA - 228V 25 July 1963, 1937-2135 hrs.;  $15^{\circ}04'N$ ,  $60^{\circ}03'W$ ; depth 4480 m.; core length 10 cm. Light brown calcareous ooze.
- LSDA - 229G 26 July 1963, 0500-0542 hrs.;  $15^{\circ}03'N$ ,  $60^{\circ}33'W$ ; depth 2395 m.; core length 36 cm. About 30 miles east of Martinique on outer slope of arc.
- LSDA - 231G 27 July 1963, 0036-0112 hrs.;  $14^{\circ}59'N$ ,  $63^{\circ}55'W$ ; depth 2080 m.; core length 25 cm. Medium brown mud in top third of core grading downward into blue-gray clay. On west flank of north-south trending rise west of Lesser Antilles Arc.
- LSDA - 232V 26-27 July 1963, 2324-0228 hrs. (two cores included in one sample).  $14^{\circ}59'N$ .  $63^{\circ}55'W$ ; depth 2085 m.; core length approx. 12\*cm. each. Medium brown mud in top half grading downward into blue gray clay.

## LUSIAD - HORIZON

- LSDH - 1G      5 October 1962, 0815-0850 hrs.;  $9^{\circ}07'N$ ,  $72^{\circ}59'E$ ; depth 2200 m.; core length 120 cm. Tan, gritty mud at top, light gray-green in bottom three-fourths. Small hills.
- LSDH - 1Va     5 October 1962, 0913-1020 hrs.;  $9^{\circ}07'N$ ,  $72^{\circ}58'E$ ; depth 2134 m.; core length approx. 10 cm. Highly fossiliferous, gritty, medium gray mud. Small, 10 to 20 fm. hills.
- LSDH - 1Vb     5 October 1962, 1651-1803 hrs.;  $9^{\circ}03'N$ ,  $73^{\circ}07'E$ ; depth 2110 m.; core length 7 cm. Light brownish-gray foraminiferal ooze; very gritty, as LSDH 1Va. Small, 10 to 20 fm. hills.
- LSDH - 3G      6-7 October 1962, 2344-0109 hrs.;  $7^{\circ}27'N$ ,  $70^{\circ}39'E$ ; depth 4110 m.; core length 136 cm. Light brown and buff colored fossiliferous mud. Irregular bottom, generally 20 to 40 fm. relief, but occasionally up to 160 fm. relief.
- LSDH - 6V      11 October 1962, 0053-0248 hrs.;  $5^{\circ}22'S$ ,  $74^{\circ}17'E$ ; depth 4780 m.; Catcher sample only. Mottled gray-brown fossiliferous mud; some elongate dark brown areas. Abyssal hills, relief up to 120 fm.
- LSDH - 6G      11 October 1962, 0255-0415 hrs.;  $5^{\circ}22'S$ ,  $74^{\circ}17'E$ ; depth 4900 m.; core length 24 cm. Medium brown, slightly mottled mud. Abyssal hills.
- LSDH - 8G      12 October 1962, 1500-1550 hrs.;  $5^{\circ}40'S$ ,  $69^{\circ}40'E$ ; depth 3450 m.; core length 31 cm. Foraminiferal ooze. Very hilly bottom, relief up to 200 fm.
- LSDH - 8V      12 October 1962, 1611-1738 hrs.;  $5^{\circ}40'S$ ,  $69^{\circ}40'E$ ; depth 3815 m.; core length approx. 7 cm. Light buff calcareous sand.. Bathymetry as for LSDH 8G.
- LSDH - 9G      13 October 1962, 1540-1646 hrs.;  $5^{\circ}43'S$ ,  $65^{\circ}58'E$ ; depth 4250 m.; core length 155 cm. Calcareous ooze, light brown at top. Flat bottom approx. 4 miles west of extensive area of high relief.
- LSDH - 9V      13 October 1962, 1703-1844 hrs.;  $5^{\circ}43'S$ ,  $65^{\circ}58'E$ ; depth 4260 m.; core length approx. 7 cm. Light brown foraminiferal ooze with buff mottling. Bathymetry as for LSDH 9G.
- LSDH - 11G     14 October 1962, 1433-1556 hrs.;  $5^{\circ}31'S$ ,  $63^{\circ}04'E$ ; depth 4070 m.; core length approx. 40 cm. in box. Light buff calcareous ooze. Mostly gently rolling bottom with occasional flats up to four miles wide; some hills of 180 fm. relief.
- LSDH - 11V     14 October 1962, 1616-1808 hrs.;  $5^{\circ}31'S$ ,  $63^{\circ}04'E$ ; depth 4260 m.; core length approx. 6 cm. Light buff calcareous ooze. Bathymetry as for LSDH 11G.

LSDH

-17-

- LSDH - 12V      15 October 1962, 1036-1216 hrs.;  $5^{\circ}28'S$ ,  $60^{\circ}02'E$ ; depth 4100 m.; core length approx. 7 cm. Light buff calcareous ooze. Flat Abyssal plain.
- LSDH - 12G      15 October 1962, 1218 hrs.;  $5^{\circ}28'S$ ,  $60^{\circ}02'E$ ; depth 4100 m.; small amount of material in freezer box. Light buff calcareous ooze. Flat abyssal plain.
- LSDH - 13G      16 October 1962, 0101-0210 hrs.;  $5^{\circ}26'S$ ,  $58^{\circ}29'E$ ; depth 3950 m.; core length 46 cm. Light buff calcareous ooze. Abyssal plain.
- LSDH - 14G      16 October 1962, 1707 hrs.;  $4^{\circ}10'S$ ,  $57^{\circ}15'E$ ; depth 3775 m.; core length 41 cm. Light buff calcareous ooze. Gently rolling abyssal hills.
- LSDH - 15G      16 October 1962, 2230-2315 hrs.;  $4^{\circ}20'S$ ,  $56^{\circ}45'E$ ; depth 2620 m.; core length 125 cm. Light buff calcareous ooze. Flank of Seychelles platform; very irregular bottom of up to 40 fm. relief.
- LSDH - 16D      17 October 1962, 0330-0639 hrs.;  $4^{\circ}26'S$ ,  $56^{\circ}20'E$ ; depth < 1000 m.; One burlap bag of sponges; 2 boxes of coral; 1 box of shells; 1 jar of fish and invertebrates. Anchored with dredge.
- LSDH - 18V      21 October 1962, 1321-1458 hrs.;  $9^{\circ}49'S$ ,  $56^{\circ}27'E$ ; depth 3890 m.; core length approx. 7 cm. Light buff calcareous ooze. Hilly topography of approx. 300 fm. relief.
- LSDH - 18G      21 October 1962, 1505-1605 hrs.;  $9^{\circ}49'S$ ,  $56^{\circ}29'E$ ; depth 3890 m.; core length 155 cm. Light buff calcareous ooze. Bathymetry as for LSDH 18V.
- LSDH - 19G      22 October 1962, 0042-0140 hrs.;  $10^{\circ}06'S$ ,  $57^{\circ}52'E$ ; depth 3933 m.; core length 10 cm. in catcher box. Calcareous ooze. Abyssal plain.
- LSDH - 19V      22 October 1962, 0150-0322 hrs.;  $10^{\circ}06'S$ ,  $57^{\circ}52'E$ ; depth 3938 m.; core length approx. 10 cm. Light buff calcareous ooze. Abyssal plain.
- LSDH - 20G      22 October 1962, 1541-1630 hrs.;  $10^{\circ}29'S$ ,  $59^{\circ}23'E$ ; depth 2870 m.; core length 105 cm. Light gray-buff calcareous ooze. Hummocky to gently rolling topography.
- LSDH - 20V      22 October 1962, 1818-1934 hrs.;  $10^{\circ}27'S$ ,  $59^{\circ}24'E$ ; depth 2845 m.; core length approx. 6 cm. Light buff to gray-buff calcareous ooze. Hummocky to gently rolling topography.
- LSDH - 22G      1 November 1962, 1743-2010 hrs.;  $25^{\circ}26'S$ ,  $57^{\circ}38'E$ ; depth 5105 m.; core length 135 cm. Uniform dark chocolate brown mud.
- LSDH - 22V      1-2 November 1962, 2352-0147 hrs.;  $25^{\circ}30'S$ ,  $57^{\circ}39'E$ ; depth 5100 m.; core length approx. 10 cm. Uniform dark chocolate brown mud.
- LSDH - 23G      4 November 1962, 1626-1749 hrs.;  $31^{\circ}14'S$ ,  $62^{\circ}58'E$ ; depth 4910 m.; core length 137 cm. Uniform dark chocolate brown mud.

- LSDH - 25G      8 November 1962, 0531-0652 hrs.;  $39^{\circ}43' S$ ,  $67^{\circ}58' E$ ; depth 4115 m.; core length 146 cm. Uniform light buff diatomaceous-foraminiferal ooze(?).
- LSDH - 25V      8 November 1962, 0721-0915 hrs.;  $39^{\circ}44' S$ ,  $67^{\circ}53' E$ ; depth 4065 m.; core length approx. 6 cm. Light buff diatomaceous-foraminiferal(?) ooze.
- LSDH - 26G      9 November 1962, 0614-0728 hrs.;  $40^{\circ}46' S$ ,  $72^{\circ}47' E$ ; depth 4045 m.; core length 99 cm. Uniform light buff mud.
- LSDH - 26V      9 November 1962, 0744-0928 hrs.;  $40^{\circ}46' S$ ,  $72^{\circ}46' E$ ; depth 4000 m.; core length approx. 6 cm. Uniform light buff mud.
- LSDH - 27G      9 November 1962, 1857-2012 hrs.;  $41^{\circ}00' S$ ,  $75^{\circ}10' E$ ; depth 4190 m.; core length 75 cm. Uniform light buff mud. Core tubing had to be forced out, and core probably disturbed.
- LSDH - 28G      10 November 1962, 0624-0718 hrs.;  $40^{\circ}21' S$ ,  $76^{\circ}31' E$ ; depth 3025 m.; core length 20 cm. Light buff mud.
- LSDH - 28V      10 November 1962, 0744-0900 hrs.;  $40^{\circ}21' S$ ,  $76^{\circ}31' E$ ; depth 3020 m.; core length approx. 8 cm. Light buff mud with darker particles and one shark's tooth.
- LSDH - 29V      16 November 1962, 0500-0616 hrs.;  $36^{\circ}07' S$ ,  $75^{\circ}59' E$ ; depth 3290 m.; core length approx. 7 cm. Light buff Globigerina (?) ooze.
- LSDH - 30G      16 November 1962, 1535-1632 hrs.;  $37^{\circ}21' S$ ,  $76^{\circ}34' E$ ; depth 3375 m.; core length 19 cm. Light buff Globigerina (?) ooze.
- LSDH - 30V      16 November 1962, 1644-1800 hrs.;  $37^{\circ}21' S$ ,  $76^{\circ}34' E$ ; depth, multiple bottom: approx. 3350 m.; core length approx. 7 cm. Light buff Globigerina (?) ooze.
- LSDH - 31V      22 November 1962, 1512-1643 hrs.;  $32^{\circ}58' S$ ,  $96^{\circ}02' E$ ; depth 4034 m.; core length approx. 8 cm. Light buff ooze (Globigerina?).
- LSDH - 32D      23 November 1962, 0247-0509 hrs.;  $32^{\circ}22' S$ ,  $97^{\circ}51' E$ ; depth 1349-2489 m. Apparently lost overboard.
- LSDH - 33G      23 November 1962, 1900-1943 hrs.;  $32^{\circ}06' S$ ,  $100^{\circ}20' E$ ; depth 2455 m.; core length 13 cm. Light buff Globigerina (?) ooze.
- LSDH - 34V      24 November 1962, 1106-1248 hrs;  $32^{\circ}45' S$ ,  $102^{\circ}45' E$ ; depth 4800 m.; core length 10 cm. Dark chocolate brown foraminiferal mud with darker brown mottles.
- LSDH - 34G      24 November 1962, 1301-1423 hrs. (second of two attempts);  $32^{\circ}45' S$ ,  $102^{\circ}45' E$ ; depth 4755 m.; core length 144 cm. Dark chocolate brown (almost deep red) foraminiferal mud. In basin about 20-25 miles east of slope from large east-west trending ridge.

- LSDH - 35V      24 November 1962, 1913-2107 hrs.;  $32^{\circ}59'S$ ,  $103^{\circ}33'E$ ; depth 5130 m.; core length approx. 10 cm. Dark chocolate brown mud.
- LSDH - 36V      25 November 1962, 1640-2116 hrs.;  $33^{\circ}58'S$ ,  $107^{\circ}12'E$ ; depth 5300 m.; core length approx. 12 cm. Dark chocolate brown mud.
- LSDH - 37G      ~~2~~<sup>6</sup> November 1962, 2233-2348 hrs.;  $33^{\circ}54'S$ ,  $107^{\circ}13'E$ ; depth 4512 m.; few grains in catcher. Light buff, gritty (foraminiferal ?) ooze with small deep yellow particles.
- LSDH - 38G      27 November 1962, 1358 hrs.;  $32^{\circ}16'S$ ,  $113^{\circ}56'E$ ; depth 4275 m.; core length 35 cm. Light buff foraminiferal ooze.
- LSDH - 39P      28 November 1962, 0709 hrs.;  $31^{\circ}57'S$ ,  $115^{\circ}37'E$ ; depth 18 m. Small amount from catcher of poorly to moderately sorted dark gray sand containing one live mollusc and a small gastropod fragment; approx. 20% black grains (up to 0.5 mm) and fine silt size; mostly medium to coarse sand size. No penetration; corer fell over.
- LSDH - 39G      28 November 1962, 0814-0900 hrs.;  $31^{\circ}57'S$ ,  $115^{\circ}37'E$ , depth 18 m.; core length approx. 10 cm. Description as for LSDH 39P, but also containing live worms. Core washed out on deck.
- LSDH - 40G      28 November 1962, 0733-0738 hrs.;  $31^{\circ}57'S$ ,  $115^{\circ}37'E$ ; depth 18 m. Description taken from catcher sample: Gray-green silt with a few small shell fragments.
- LSDH - 41G      4 December 1962, 1645-1818 hrs.;  $29^{\circ}15'S$ ,  $110^{\circ}44'E$ ; depth 5550 m.; core length 11 cm. Light buff and light brown mottled foraminiferal(?) mud.
- LSDH - 42V      6 December 1962, 0448-0531 hrs.;  $25^{\circ}42'S$ ,  $105^{\circ}22'E$ ; depth 4840 m.; core length approx. 9 cm. Dark brown fossiliferous mud and one 2 cm. Mn nodule.
- LSDH - 43V      6 December 1962, 1727-1928 hrs.;  $24^{\circ}36'S$ ,  $103^{\circ}37'E$ ; depth 5400 m.; core length 3 cm. after approx. 5 cm. washed out. Uniform dark brown mud.
- LSDH - 44V      8 December 1962, 1715-1907 hrs.;  $20^{\circ}11'S$ ,  $96^{\circ}22'E$ ; depth 4910 m.; core length 10 cm. Dark brown compacted mud with medium to light brown mottling.
- LSDH - 45V      12 December 1962, 0042-0240 hrs.;  $14^{\circ}13'S$ ,  $89^{\circ}41'E$ ; depth 5315 m.; core length 10 cm. Uniform dark brown, slightly gritty mud.
- LSDH - 45G      12 December 1962, 0533-0705 hrs.;  $14^{\circ}07'S$ ,  $89^{\circ}35'E$ ; depth 5255 m.; core length 92 cm. Dark brown mud with apparently large Mn nodules near the top. Catcher sample graded rapidly to chalky mud.
- LSDH - 46V      12 December 1962, 1848-2040 hrs.;  $13^{\circ}39'S$ ,  $91^{\circ}32'E$ ; depth 5150 m.; core length 8 cm. Uniform dark brown mud.

LSDH

-20-

- LSDH - 47G 13 December 1962, 0515-0646 hrs.;  $13^{\circ}23'S$ ,  $92^{\circ}31'E$ , depth 5165 m.; core length 45 cm. Uniform dark brown mud.
- LSDH - 48G(?) 13 December 1962, 1848-1854 hrs.;  $12^{\circ}50'S$ ,  $94^{\circ}05'E$ . No core.
- LSDH - 49G(?) 15 December 1962, 0500-0709 hrs.;  $13^{\circ}39'S$ ,  $99^{\circ}32'E$ . No core.
- LSDH - 50V 15 December 1962, 1718-1909 hrs.;  $14^{\circ}06'S$ ,  $101^{\circ}22'E$ ; depth 5110 m.; core length 7 cm. Medium brown foraminiferal mud with light brown mottling.
- LSDH - 51G 17 December 1962, 0353-0535 hrs.;  $14^{\circ}57'S$ ,  $107^{\circ}16'E$ ; depth 5637 m.; core length 143 cm. Top 10 cm. dark brown foraminiferal clay and white calcareous ooze.
- LSDH - 52V 17 December 1962, 1722-1924 hrs.;  $14^{\circ}58'S$ ,  $109^{\circ}13'E$ ; depth 5640 m.; core length 8 cm. Dark brown foraminiferal mud with black particles.
- LSDH - 53G 19 December 1962, 0405-0533 hrs.;  $14^{\circ}13'S$ ,  $114^{\circ}43'E$ ; depth 5660 m.; core length 141 cm. Dark brown to gray sandy mud.
- LSDH - 54G 19 December 1962, 1645-1818 hrs.;  $13^{\circ}08'S$ ,  $116^{\circ}30'E$ ; depth 5660 m.; core length 159 cm. Dark brown to dark gray mud.
- LSDH - 55V 20 December 1962, 0218-0423 hrs.;  $13^{\circ}42'S$ ,  $117^{\circ}23'E$ ; depth 5715 m.; core length 7 cm. Dark brown mud.
- LSDH - 56P 22 December 1962, 0908-0916 hrs.;  $12^{\circ}08'S$ ,  $127^{\circ}14'E$ ; depth 95 m.; Two attempts: (1) faulty core catcher; medium gray mud with abundant shell fragments; (2) catcher sample, very little penetration: medium gray to white very hard clay with shell fragments and coral.
- LSDH - 57P 22 December 1962, 1339-1345 hrs.;  $11^{\circ}44'S$ ,  $127^{\circ}57'E$ ; depth 132 m.; core length: Section 1(?), 152 cm.; Section 2(?) 145 cm. Medium gray-green mud with shell fragments and sandy lenses and/or layering.
- LSDH - 58G 3 January 1963, 1938-2015 hrs.;  $14^{\circ}30'S$ ,  $148^{\circ}42'E$ ; depth 2122 m.; core length 140 cm. Calcareous ooze. Top of hill in very rough area.
- LSDH - 58V 3 January 1963, 2033-2139 hrs.;  $14^{\circ}30'S$ ,  $148^{\circ}42'E$ ; depth 2045 m.; In plastic box. Calcareous ooze. Bathymetry as for LSDH 58G.
- LSDH - 59 PG 4 January 1963, 1110-1430 hrs.;  $14^{\circ}53'S$ ,  $151^{\circ}12'E$ ; depth 4140 m.; small catcher sample. Calcareous ooze, apparently similar to associated piston core. Hills, 40-100 fm. relief.
- LSDH - 59P Simultaneously with LSDH 59 PG. Core length: top approx. 20 cm. disturbed, placed in two plastic boxes; remainder, 25 cm. Stiff calcareous ooze, with practically no siliceous microfossils.
- LSDH - 60G 4 January 1963, 2008-2135 hrs.;  $13^{\circ}57'S$ ,  $151^{\circ}47'E$ ; depth 4660 m.; core length 79 cm. Buff over greenish-gray silty clay with practically no microfossils. Perfectly flat bottom.

- LSDH - 60V      4 January 1963, 2156-2350 hrs.;  $13^{\circ}57'S$ ,  $151^{\circ}47'E$ ; depth 4660 m.; Small amount of buff clay in plastic box. Bathymetry as for LSDH 60G.
- LSDH - 61PG     5 January 1963, 0530-0935 hrs.;  $13^{\circ}07'S$ ,  $152^{\circ}24'E$ ; depth 4610 m.; core length 64cm. Buff over greenish-gray, silty clay. Perfectly smooth bottom.
- LSDH - 61P      Simultaneously with LSDH 61PG. Core length: Section 1 (bottom of core), 159 cm. Section 2, 150 cm.; Section 3, 150 cm.; Section 4, 53 cm. Buff overlying greenish-gray, silty clay.
- LSDH - 62G      6 January 1963, 0322-0430 hrs.;  $15^{\circ}43'S$ ,  $154^{\circ}44'E$ ; depth 4190 m.; core length 119 cm. Buff, clayey calcareous ooze. Hilly region south of an extensive plain.
- LSDH - 62V      6 January 1963, 0444-0613 hrs.;  $15^{\circ}43'S$ ,  $154^{\circ}44'E$ ; depth 4160 m.; small sample in plastic box. Buff calcareous ooze. Bathymetry as for LSDH 62G.
- LSDH - 63G      6 January 1963, 0701-0810 hrs.; approx.  $15^{\circ}43'S$ ,  $154^{\circ}44'E$ ; depth 4500 m.; core length 113 cm. Buff over greenish-gray clay. Perfectly smooth bottom.
- LSDH - 64PG     6 January 1963, 1106-1419 hrs.;  $16^{\circ}03'S$ ,  $155^{\circ}00'E$ ; depth 4070 m.; core length 48 cm. Buff, clayey calcareous ooze. Hilly country, 50-100 fm. relief.
- LSDH - 64P      Simultaneously with LSDH 64PG. No core. Core barrel bent sharply about 5 feet from bottom end. No sign of core-nose hitting hard material. Reason for bending unknown.
- LSDH - 65G      6 January 1963, 2236-2320 hrs.;  $14^{\circ}47'S$ ,  $155^{\circ}56'E$ ; depth 2982 m.; core length 124 cm. Buff calcareous ooze. Gentle hills, 50-100 fm. relief.
- LSDH - 65V      6-7 January 1963, 2327-0039 hrs.;  $14^{\circ}47'S$ ,  $155^{\circ}56'E$ ; depth 2985 m.; small sample in plastic box. Calcareous ooze.
- LSDH - 66PG     7 January 1963, 1002-1135 hrs.;  $13^{\circ}17'S$ ,  $156^{\circ}51'E$ ; depth 2031 m.; Buff calcareous ooze. Almost flat bottom.
- LSDH - 66P      Simultaneously with LSDH 66PG. No core.
- LSDH - 67PG     7 January 1963, 1629-1755 hrs.;  $12^{\circ}32'S$ ,  $157^{\circ}13'E$ ; depth 1941 m.; core length 22 cm. Calcareous ooze. Almost flat bottom.
- LSDH - 67P      Simultaneously with LSDH 67PG. Core length; Section 1 (bottom of core), 150 cm., slightly disturbed; Section 2, 150 cm., disturbed; Section 3, 158 cm., greatly disturbed. Calcareous ooze.
- LSDH - 68PG     8 January 1963, 0324-0552 hrs.;  $11^{\circ}19'S$ ,  $158^{\circ}03'E$ ; depth 3080 m.; core length 53 cm. Buff calcareous ooze. Gently sloping bottom.

005

LSDH

-22-

- LSDH - 68P Simultaneously with LSDH 68PG. Core length; Section 1 (bottom of core), 25 cm.; Section 2, 150 cm.; Section 3, 150 cm.; Section 4, 50 cm. Calcareous ooze, buff above and purplish below.
- LSDH - 69V 8 January 1963, 0605-0720 hrs.;  $11^{\circ}21'S$ ,  $158^{\circ}01'E$ ; depth 4850 m. Medium brown mud.
- LSDH - 69G 8 January 1963, 1718-1842 hrs.;  $9^{\circ}52'S$ ,  $159^{\circ}01'E$ ; depth 4850 m.; core length 87 cm. Silty clay with siliceous and calcareous microfossils. Bottom of Solomon Island Trench.
- LSDH - 70G 9 January 1963, 0201-0228 hrs.;  $9^{\circ}04'S$ ,  $159^{\circ}36'E$ ; depth 1340 m. No core. Apparently a very little sediment was obtained and slid out of barrel at water surface. Almost flat bottom on Solomon Island ridge.
- LSDH - 71G 10 January 1963, 1522 hrs.;  $8^{\circ}31'S$ ,  $160^{\circ}15'E$ ; depth 1463 m.; core length 69 cm. Brownish over gray silty clay with siliceous and calcareous microfossils. Rather steep slope.
- LSDH - 72G 10 January 1963, 1805-1835 hrs.;  $8^{\circ}12'S$ ,  $160^{\circ}20'E$ ; depth 1494 m. Short core stored entire in plastic box. Stiff calcareous ooze. Steep slope.
- LSDH - 73G 10 January 1963, 1936-2016 hrs.;  $8^{\circ}04'S$ ,  $160^{\circ}23'E$ ; depth 2640 m.; core length 54 cm. Brown over gray, silty clay. Steep slope.
- LSDH - 73V 10 January 1963, 2114-2229 hrs.;  $8^{\circ}05'S$ ,  $160^{\circ}23'E$ ; approximately 1 mile south of 73G; depth 2970 m. Grayish clay. Flat bottom of small "trench".
- LSDH - 74G 10-11 January 1963, 2351-0026 hrs.;  $7^{\circ}53'S$ ,  $160^{\circ}29'E$ ; depth 1738 m. Very small sample in plastic box. Stiff, white calcareous ooze. Rough topography, 100-200 fm. relief.
- LSDH - 75G(?) 11 January 1963;  $7^{\circ}43'S$ ,  $160^{\circ}48'E$ . No core.
- LSDH - 76PG 11 January 1963, 1810-2054 hrs.;  $6^{\circ}40'S$ ,  $163^{\circ}13'E$ ; depth 3560 m.; core length 152 cm. Flat bottom.
- LSDH - 76P Simultaneously with LSDH 76PG. Core length: Section 1 (bottom of core) 148 cm.; Section 2, 148 cm.; Section 3, 107 cm.; Section 4, 27 cm, stirred. Calcareous ooze.
- ( LSDH - 76V 11 January 1963, 2123-2248 hrs.;  $6^{\circ}40'S$ ,  $163^{\circ}13'E$ ; depth 3565 m. Calcareous ooze.
- LSDH - 77PG 12 January 1963, 1220-1413 hrs.;  $5^{\circ}39'S$ ,  $165^{\circ}28'E$ ; depth 2422 m. No core. Rough topography, 100-200 fm. relief.
- LSDH - 77P Simultaneously with LSDH 77PG. No core.
- LSDH - 77G 12 January 1963, 1426-1508 hrs.;  $5^{\circ}42'S$ ,  $165^{\circ}25'E$ ; depth 2556 m.; core length 132 cm. Calcareous ooze. Rough topography, 100-200 fm. relief.

1005

LSDH

-23-

- LSDH - 78PG      13 January 1963, 0906-1130 hrs.;  $4^{\circ}31'S$ ,  $168^{\circ}02'E$ ; depth 3208 m.; core length 176 cm., plus approx. 15 cm. lost from overpenetration into weight-stand. Buff calcareous ooze. On a 20 fm. rise in a flattish area.
- LSDH - 78P      Simultaneously with LSDH 78PG. Core length; Section 1 (bottom of core), 150 cm.; Section 2, 150 cm.; Section 3, 149 cm.; Section 4, 77 cm. Calcareous ooze, white at bottom.
- LSDH - 78V      13 January 1963, 1147-1311 hrs.;  $4^{\circ}30'S$ ,  $167^{\circ}58'E$ ; depth 3055 m.; Small sample of buff calcareous ooze.
- LSDH - 79PG      14 January 1963, 0243-0550 hrs.;  $3^{\circ}23'S$ ,  $170^{\circ}02'E$ ; depth 3600 m.; core length 176 cm. Calcareous. Almost flat bottom.
- LSDH - 79P      Simultaneously with LSDH 79PG. Core length: Section 1 (bottom of core), 150 cm.; Section 2, 149 cm.; Section 3, 142 cm. Calcareous ooze.
- LSDH - 80G      16 January 1963, 0856-1015 hrs.;  $6^{\circ}16'N$ ,  $168^{\circ}07'E$ ; depth 4850 m.; core length 177 cm. At the bottom siliceous ooze with few foraminiferal fragments. Very gently rolling 20 fm. relief.
- LSDH - 80V      16 January 1963, 1035-1214 hrs.;  $6^{\circ}16'N$ ,  $168^{\circ}07'E$ ; depth 4845 m. Small sample. Siliceous ooze (?).
- LSDH - 81G      16 January 1963, 1828-2008 hrs.;  $7^{\circ}24'N$ ,  $167^{\circ}38'E$ ; depth 4960 m.; core length 117 cm. At the bottom, radiolarian clay; apparently calcareous higher in core. Flat bottom.
- LSDH - 81V      1963, 16 January/ 2017-2215 hrs.;  $7^{\circ}24'N$ ,  $167^{\circ}38'E$ ; depth 4920 m. Calcareous clay (?).
- LSDH - 82G      22 January 1963, 1921-2050 hrs.;  $8^{\circ}59'N$ ,  $173^{\circ}01'E$ ; depth 5000 m.; core length 97 cm. Brown clay. Almost flat bottom.
- LSDH - 83PG      23 January 1963, 0937-2200 hrs. (two attempts);  $10^{\circ}54'N$ ,  $174^{\circ}01'E$ ; depth 5530 m.; core length 129 cm. Brown clay. Gentle hills, 40 fm. relief.
- LSDH - 83P      Simultaneously with LSDH 83PG. Core length: Section 1 (bottom of core), 138 cm.; Section 2, 150 cm.; Section 3, 150 cm.; Section 4, 92 cm. Dark brown throughout; at bottom apparently radiolarian ooze.
- LSDH - 83V      23 January 1963, 1419-1618 hrs.;  $10^{\circ}53'N$ ,  $173^{\circ}54'E$ ; depth 5535 m. Small sample of brown clay.
- LSDH - 84PG      24 January 1963, 1046 hrs.;  $12^{\circ}21'N$ ,  $174^{\circ}38'E$ ; depth 5650 m.; core length 108 cm. Brown clay. Almost flat bottom.
- LSDH - 84P      Simultaneously with LSDH 84PG. Core length: Section 1 (bottom of core), 150 cm.; Section 2, 147 cm.; Section 3, 150 cm.; Section 4, 25 cm. Dark brown clay.

LSDH

605

-24-

- LSDH - 85G      25 January 1963, 0042-0116 hrs.;  $13^{\circ}38'N$ ,  $175^{\circ}25'E$ ; depth 1400 m. A few fragments only of Mn crust on brownish rock. Near top of a seamount.
- LSDH - 86G      25 January 1963, 1213-1354 hrs.;  $12^{\circ}25'N$ ,  $176^{\circ}56'E$ ; depth 5570 m.; core length 105 cm. Brown clay with Mn nodules at top. On the side of a 100 fm. hill.
- LSDH - 87PG     25-26 January 1963, 2225-0412 hrs.;  $11^{\circ}30'N$ ,  $177^{\circ}48'E$ ; depth 5520 m.; core length 95 cm. Brown clay. Among 100 fm. hills.
- LSDH - 87P      Simultaneously with LSDH 87PG. Core length: Section 1 (bottom of core, 150 cm; Section 2, 150 cm.; Section 3, 150 cm.; Section 4, 125 cm. Brown clay with Mn nodules at top.
- LSDH - 88PG     26 January 1963, 1125-1621 hrs.;  $8^{\circ}33'N$ ,  $177^{\circ}46'W$ ; depth 5620 m. No core. Gentle hills, 50-100 fm.
- LSDH - 88P      Simultaneously with LSDH 88PG. Core length: Section 1 (bottom of core), 124 cm.; Section 2, 145 cm.; Section 3, 166 cm. Radiolarian ooze with a chert layer at the bottom (in catcher); core above chert layer seems badly disturbed.
- LSDH - 89PG     26-27 January 1963, 2200-0835 hrs. (two attempts);  $8^{\circ}08'N$ ,  $177^{\circ}10'W$ ; depth 5435 m; core length 141 cm. Brown clay with Mn nodules on top. Among 100 fm hills.
- LSDH - 89P      Simultaneously with LSDH 89PG. Core length: Section 1 (bottom of core), 141 cm.; Section 2, 150 cm.; Section 3, 139 cm.; Section 4, 27 cm. Brown clay.
- LSDH - 89V      27 January 1963, 0851-1050 hrs.;  $8^{\circ}07'N$ ,  $177^{\circ}15'W$ ; depth 5315 m.; Brown clay with Mn nodules at top.
- LSDH - 90PG     28 January 1963, 1202-1645 hrs.;  $7^{\circ}19'N$ ,  $175^{\circ}28'W$ ; depth 5190 m.; core length 145 cm. Brown clay with Mn nodules on top. Part way down a 400 fm. slope.
- LSDH - 90P      Simultaneously with LSDH 90 PG. Core length: Section 1 (bottom of core), 150 cm.; Section 2, 150 cm.; Section 3, 150 cm.; Section 4, 96 cm. At the top apparently calcareous clay; below that, brown clay; highly radiolarian at the bottom.
- LSDH - 91PG     29 January 1963, 1557-2208 hrs.;  $9^{\circ}11'N$ ,  $172^{\circ}03'W$ ; depth 5510 m.; core length 136 cm. Radiolarian ooze. On a very gentle 50 fm. hill.
- LSDH - 91P      Simultaneously with LSDH 91PG. Core length: Section 1 (bottom of core), 150 cm., Section 2, 150 cm.; Section 3, 150 cm.; Section 4, 109 cm. Radiolarian ooze.
- LSDH - 92V      30 January 1963, 0438-0609 hrs.;  $9^{\circ}30'N$ ,  $171^{\circ}03'W$ ; depth 4230 m. Calcareous ooze.
- LSDH - 93PG     30 January 1963, 0943-1435 hrs.;  $9^{\circ}49'N$ ,  $170^{\circ}59'W$ ; depth 4875 m.; core length 69 cm. Calcareous ooze with Mn nodule on top. On a 30 fm hill.

1005

LSDH

-25-

- LSDH - 93P Simultaneously with LSDH 93PG. Core length: Section 1 (bottom of core), 74 cm.; Section 2, 150 cm.; Section 3, 121 cm. Siliceous and calcareous ooze overlying a Mn crust (in catcher).
- LSDH - 93V 30 January 1963, 1500-1640 hrs.;  $9^{\circ}49'N$ ,  $170^{\circ}59'W$ ; depth 4990 m. Three small Mn nodules.
- LSDH - 94V 31 January 1963, 0125-0230 hrs.;  $10^{\circ}42'N$ ,  $169^{\circ}45'W$ ; depth 2500 m. Calcareous ooze. On Line Island Rise.
- LSDH - 95V 31 January 1963, 0854-1044 hrs.;  $11^{\circ}27'N$ ,  $168^{\circ}52'W$ ; depth 5315 m. Brown clay. Almost flat bottom.
- LSDH - 95G 31 January 1963, 1050-1214 hrs.;  $11^{\circ}28'N$ ,  $168^{\circ}51'W$ ; depth 5285 m.; core length 154 cm. Brown clay with Mn nodule at top. Almost flat bottom.
- LSDH - 96PG 1-2 February 1963, 1942-0204 hrs.;  $15^{\circ}10'N$ ,  $164^{\circ}39'W$ ; depth 5523 m.; core length 76 cm. Chocolate brown clay. Gentle 30 fm. hills.
- LSDH - 96P Simultaneously with LSDH 96 PG. Core length: Section 1 (bottom of core), 151 cm.; Section 2, 151 cm.; Section 3, 149 cm.; Section 4, 118 cm. Chocolate brown clay.
- LSDH - 97G 7 February 1963, 1159-1342 hrs.;  $20^{\circ}15'N$ ,  $154^{\circ}13'W$ ; depth 5500 m.; core length 31 cm. Light brown mud with occasional gray mottles. Smooth (2-4 fm. relief).
- LSDH - 98G 8 February 1963, 1106 hrs.;  $19^{\circ}58'N$ ,  $151^{\circ}06'W$ ; depth 5360 m.; core length 174 cm. Dark brown, very soft mud. Flat (8-10 fm. relief). Double bottom over large area with deeper one strongest and about 2-4 fm. below upper surface.
- LSDH - 99G 10 February 1963, 0545-0710 hrs;  $20^{\circ}06'N$ ,  $145^{\circ}18'W$ ; depth 5370 m.; core length 135 cm. Medium brown ooze. 100 fm. hills.
- LSDH - 99V 10 February 1963, 0723-0920 hrs.;  $20^{\circ}07'N$ ,  $145^{\circ}16'W$ ; depth 5410 m.; core length approx. 12 cm. Medium brown ooze. Bathymetry as for LSDH 99G.
- LSDH - 100G 11 February 1963, 1220 hrs.;  $21^{\circ}26'N$ ,  $140^{\circ}23'W$ ; depth 5200 m.; core length 143 cm. Medium brown mud; Mn nodule at top. Taken from top of 70 fm. hill; bottom generally hilly (40-100 fm.)
- LSDH - 100V 11 February 1963, 1507-1716 hrs.;  $21^{\circ}28'N$ ,  $140^{\circ}24'W$ ; depth 5200 m.; core length approx. 12 cm. Medium brown mud.
- LSDH - 101G 12 February 1963, 0141 hrs.;  $22^{\circ}10'N$ ,  $138^{\circ}59'W$ ; depth 5120 m. Medium brown mud. 40-60 fm. hills.
- LSDH - 101Va 12 February 1963, 0339-0524 hrs.;  $22^{\circ}08'N$ ,  $139^{\circ}00'W$ ; depth 5100 m.; core length 10 cm. Uniform medium brown mud. Bathymetry as for LSDH 101G.

LSDH

-26-

- LSDH - 101Vb 12 February 1963, 0548-0740 hrs.;  $22^{\circ}07'N$ ,  $139^{\circ}02'W$ ; depth 5100 m.; core length 10 cm. Uniform medium brown mud. Bathymetry as for LSDH 101G.
- LSDH - 102G 14 February 1963, 0548 hrs.;  $23^{\circ}15'N$ ,  $130^{\circ}58'W$ ; depth 4850 m.; core length 131 cm. Medium brown mud. 40-80 fm. hills.
- LSDH - 102Va 14 February 1963, 0733 hrs.;  $23^{\circ}14'N$ ,  $130^{\circ}58'W$ ; depth 4860 m.; core length approx. 12 cm. Medium brown mud. Bathymetry as for LSDH 102G.
- LSDH - 102Vb 14 February 1963, 0944-1129 hrs.;  $23^{\circ}13'N$ ,  $130^{\circ}58'W$ ; depth 4860 m.; core length approx. 12 cm. Medium brown mud. Bathymetry as for LSDH 102G.
- LSDH - 102Vc 14 February 1963, 1158-1341 hrs.;  $23^{\circ}12'N$ ,  $130^{\circ}57'W$ ; depth 4880 m.; core length approx. 12 cm. Medium brown mud. Bathymetry as for LSDH 102G.
- LSDH - 103G 16 February 1963, 0147 hrs.;  $27^{\circ}29'N$ ,  $125^{\circ}49'W$ ; depth 4450 m.; core length 79 cm.
- LSDH - 103Va 16 February 1963, 0357-0535 hrs.;  $27^{\circ}31'N$ ,  $125^{\circ}46'W$ ; depth 4450 m.; core length approx. 12 cm. Medium brown mud.
- LSDH - 103Vb 16 February 1963, 0557-0734 hrs.;  $27^{\circ}30'N$ ,  $125^{\circ}46'W$ ; depth 4515 m.; core length approx. 12cm. Medium brown mud.
- LSDH - 104G 17 February 1963, 0337 hrs.;  $28^{\circ}37'N$ ,  $123^{\circ}59'W$ ; depth 4360 m.; core length 113 cm. Medium brown mud. 60 fm. hills.

**The 21 pages of photographs in this file were not scanned. They can be viewed in the paper or microfiche copies of this report.**